Amendments to the Claims:

Please amend the claims to read as follows. This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1.   (Currently amended) An optical asset tracking system comprising:

[[a]] an image sensor having a plurality of pixels, each pixel configured to generate ~~an electrical signal in response to an optical data signal emitted by an optical tag and incident on the pixel~~ video data responsive to light incident on the pixel from a respective portion of an image generated on the image sensor and configured to generate a communications data signal responsive to an optical data signal incident on the pixel and emitted by an optical tag if the optical tag is present in the respective portion of the image, the optical data signal being modulated according to asset data for an asset associated with the optical tag; and

a sensor processor in communication with the sensor, the sensor processor configured to ~~generate an electrical data signal representative of the optical data signal incident on each pixel, the sensor processor generating asset data responsive to the electrical data signal for each pixel~~ provide video data for the image generated on the image sensor and being configured to provide asset data for an asset in response to a respective communications data signal.

2.   (Canceled).

3.   (Currently amended) The optical asset tracking system of claim [[2]] 1 wherein the image sensor and the sensor processor comprise an optical communications imager.

4.   (Currently amended) The optical asset tracking system of claim 1 wherein the image sensor comprises a digital video camera.

5.   (Currently amended) The optical asset tracking system of claim 1 wherein the image sensor comprises an analog video camera in electrical communication with a frame grabber.

6.   (Original) The optical asset tracking system of claim 1 further comprising an optical tag database in communication with the sensor processor, the optical tag database storing asset data for each of a plurality of optical tags.

7.   (Original) The optical asset tracking system of claim 1 further comprising a tracking processor in communication with the sensor processor.

8.   (Original) The optical asset tracking system of claim 7 wherein the sensor processor and the tracking processor are integrated as a single processor.

9.   (Original) The optical asset tracking system of claim 7 wherein the tracking processor comprises a host computer.

10.   (Original) The optical asset tracking system of claim 1 wherein asset data comprise at least one of asset identification data, environmental data, medical data and status data.

11.   (Currently amended) The optical asset tracking system of claim 1 further comprising [[the]] a plurality of optical tags, each of the optical tags configured for attachment to an asset.

12.   (Currently amended) A method for real-time location of an asset having an optical tag, the method comprising:

        emitting an optical data signal from the optical tag, the optical data signal including asset data being modulated according to asset data for the asset;

        detecting, at [[a]] an image sensor comprising a plurality of pixels, the optical data signal at one or more of the pixels; [[and]]

        determining the real-time location of the asset according to which one of the pixels received the optical data signal; and

        determining the asset data for the asset in response to the detected optical data signal.

13.   (Canceled).

14.   (Original) The method of claim 12 further comprising detecting an interrogation signal at the optical tag and performing the step of emitting the optical data signal in response thereto.

15.   (Original) The method of claim 12 further comprising:

determining a value of an environmental parameter;

comparing the value of the environmental parameter to a threshold value; and

performing the step of emitting the optical data signal in response to the comparison.

16.   (Original) The method of claim 12 further comprising generating sensor data and wherein the asset data comprises the sensor data.

17.   (Original) The method of claim 12 further comprising generating processed sensor data.

18.   (Currently amended) The method of claim 12 wherein the asset data comprise[[s]] at least one of asset identification data, environmental data, medical data and status data.

19.   (Currently amended) An optical asset tracking system comprising:

a plurality of <u>image</u> sensors each having a plurality of pixels, each pixel configured to generate ~~an electrical signal in response to an optical data signal emitted by an optical tag and incident on the pixel~~ <u>video data responsive to light incident on the pixel from a respective portion of an image generated on the respective imaging sensor and configured to generate a communications data signal responsive to an optical data signal incident on the pixel and emitted by an optical tag if the optical tag is present in the respective portion of the image, the optical data signal being modulated according to asset data for an asset associated with the optical tag;</u> and

a plurality of sensor processors each in communication with a respective one of the <u>image</u> sensors, each sensor processor configured to provide ~~asset data in response to the communications data from the respective sensor~~ <u>video data for the image generated on the</u>

respective image sensor and being configured to provide asset data for an asset in response to a respective communications data signal.

20.   (Original) The optical asset tracking system of claim 19 further comprising a tracking processor in communication with the sensor processors through a communications network.

21.   (Original) The optical asset tracking system of claim 19 further comprising a plurality of tracking processors, each of the tracking processors being in communication with a respective one of the sensor processors.

22.   (Original) The optical asset tracking system of claim 20 further comprising an optical tag database in communication with the tracking processor, the optical tag database storing asset data for each of a plurality of optical tags.

23.   (Original) The optical asset tracking system of claim 20 wherein the tracking processor comprises a host computer.

24.   (Original) The optical asset tracking system of claim 19 wherein asset data comprise at least one of asset identification data, environmental data, medical data and status data.

25.   (Currently amended) The optical asset tracking system of claim 19 further comprising [[the]] a plurality of optical tags, each of the optical tags configured for attachment to an asset.

26.   (Currently amended) An optical tag for generating ~~an optical data signal having~~ a modulated optical signal comprising asset data, the optical tag comprising:

>   ~~an optical modulator;~~

>   a memory module storing asset data for an asset to be tracked; [[and]]

>   a tag processor in electrical communication with the ~~optical modulator and the~~ memory module, the tag processor generating a ~~data signal responsive to the asset data, the optical modulator generating an optical data signal in response to the data signal.~~ communications data signal comprising the stored asset data; and

> an optical modulator in electrical communication with the tag processor and generating an optical data signal that is modulated in response to the communications data signal.

27.   (Original) The optical tag of claim 26 wherein the optical modulator comprises a light emitting diode.

28.   (Original) The optical tag of claim 26 wherein the optical modulator comprises a laser.

29.   (Original) The optical tag of claim 26 wherein the optical modulator comprises a modulated reflector.

30.   (Original) The optical tag of claim 26 further comprising an environmental sensor in electrical communication with the tag processor.

31.   (Original) The optical tag of claim 26 further comprising a control circuit in electrical communication with the tag processor and the optical modulator, the control circuit providing a control signal responsive to the data signal.

32.   (Original) The optical tag of claim 26 wherein the asset data comprise at least one of asset identification data, environmental data, medical data and status data.

33.   (Original) The optical tag of claim 26 wherein the tag processor generates a clock signal to trigger broadcasts of asset data.

34.   (Original) The optical tag of claim 33 wherein the control signal generated by the tag processor is periodic.

35.   (Original) The optical tag of claim 34 wherein the control signal generated by the tag processor is continuous.

36.   (Original) The optical tag of claim 31 further comprising a trigger sensor to detect an interrogation signal in communication with the tag processor, the control signal being responsive to the detection of the interrogation signal at the trigger sensor.

37.	(Original) The optical tag of claim 36 wherein the trigger sensor is one of an optical sensor, an RF sensor, an acoustic sensor and an environmental sensor.

38.	(Original) The optical tag of claim 26 further comprising a switch in electrical communication with the processor, the control signal generated by the tag processor causing the optical modulator to initiate an on-demand broadcast of optical data in response to an activation of the switch.

39.	(Original) The optical tag of claim 26 wherein the memory module is provided by an asset.

40.	(Original) The optical tag of claim 26 further comprising an interface module in communication with the tag processor.